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Invoicing things may serve as a convenient pattern for invoicing ideas. But the former is a radically and vastly different operation from the latter. The holder of goods can fix his own calendar in accordance with private interests, and his review merely seeks to remind him of the marketable value of his wares. The invoice does not determine whether economic survival is truly qualitative as well as quantitative.

When ideas replace things, the entire operation loses color and limits. Its chief value must reside in the determination of the fitness or the unfitness of survival on the part of the ideas. Its calendar is limited neither by personal convenience nor by solar revolutions. And the goods? They are not the unsold or the unsalable leave-overs, continuing their undisturbed repose in the respective niches in the shop or warehouse. For the inventory of ideas can countenance only those 'wares' which have survived by circulation and not by remaining on hand. It is telling what has *gone*, and not what *remains*, that gives a truer picture of the state of affairs in matters of mind. But enough of the illustration. Any résumé of a short period of time cannot observe a specified limit; for the psychological year is more an aggregate of overlapping than of adjoining units of time. And surely, none of us would have the hardihood to declare what psychological products (other than those of one's own manfacture) are really fit to survive. The impersonal logic of history, both of the little and of the big, knows naught of the personal emotion which is equated in the declaration that 'my thought, my classification, my theory is the only fit thing for survival, at least as long as I can think.' Perhaps the prime intention of an historical résumé is to aid us a step or two

towards an appreciation of that impersonal logic—contradictory though it may be to psychological affairs.

Our psychological year has been full of interest, activity, results, and surprises. It has yielded one or two permanently distinguishing events in the external fortunes of the science, and must chronicle a few profound intimations regarding its internal welfare. It has not been an erratic year; for it progressively exhibited a continuance of that relation of fact and conception to the advance of the science which was presented a year ago.¹ It can still be said that the lines of advance center about new facts and their explanation on the one hand, and the development of theory on the other. 1904, with much of 1903 (both together make a convenient 'psychological year'), has probably emphasized temporarily the greater importance of theory. If one must find a single term descriptive of these complex movements, then it is to be said that the period has been one of *readjustment* with vigorous efforts looking towards a more acceptable *synthesis* of the contents. Probably this year does not duplicate the chief features of any single preceding year in the last twenty-five. It thus permits psychologists to indulge in that sort of satisfaction which accompanies doing 'something new'; but it does not guarantee that there has been 'progress,' at least in the direction of direct advance.

Is psychology becoming more organized, more systematic—or is it becoming disorderly, a mere aggregate, an *Unding*? That experience (used in any possible sense) is *not* an aggregate, not a mere jumble of events, is one of the most stubborn facts with which we meet. It is not enough that ideas, or any or all other 'elements' or 'aspects' of consciousness simply occur together. And every psychologist is intent upon making plain in a scientific and logical way what factor it is that is fundamentally implied in such a negative declaration.

This is most emphatically declared in the most astounding feature of 1903–04. This period is chiefly marked by a sudden and widespread reexamination of the aims, methods, and fundamental conceptions of psychology. It has taken on the form of a social reaction to the earlier teachings of the science. This movement has had its predecessors; but the attacks upon, and subsequent justifications of introspection thirty years ago, and the *pros* and *cons* of psychology as a natural science fifteen years ago were movements noticeably different from that of to-day. *Then* the psychologists were mostly put upon the defensive; *now* the movement originates among the *Fachmänner*

¹ 'Psychological Progress,' PSYCHOLOGICAL BULLETIN, I., No. 3, February 15, 1904, p. 57 f.

themselves and has developed in the interest of the expansion of psychology. The situation is complex as to details, which do not readily resolve themselves. It would be rather hazardous to cite any particular contribution to psychological thinking as the historic spring calling forth the varied amount of energy which has been concentrated on this issue, making it truly the storm-center. Perhaps the phenomenon has arisen solely as a *cosmic* sort of thing—to relieve a universal ‘tension’—and incidentally to make us more conscious of our experience (*à la* Pragmatism). Witness Ward’s ‘On the Definition of Psychology’ and ‘The Problems of Psychology,’ Dewey’s (*et al.*) ‘Studies in Logical Theory,’ Royce’s ‘The Eternal and the Practical,’ Baldwin’s ‘The Limits of Pragmatism,’ James’s ‘Does Consciousness Exist,’ Cattell’s ‘The Conceptions and Methods of Psychology,’ Bawden’s ‘The Meaning of the Psychical from the Standpoint of the Functional Psychology,’ Busse’s ‘Geist und Körper, u. s. w.,’ Ostwald’s ‘The Philosophical Meaning of Energy,’ and so on.

We might take as extremely symptomatic of this movement—not as its origin or its culmination, however,—Professor Royce’s measured and consistent rejection of the ‘elements’ of consciousness, and his declaration that consciousness is not analyzable.¹ The culmination reads most clearly in another and later avowal from Harvard, namely, that consciousness does not ‘exist,’ and is to be blotted out.² Professor James confesses that he has been uneasy, as early as ‘twenty years ago,’ about consciousness as a thing, a biographical item which must hereafter give permanent and perhaps reversed coloring to the two magnificent volumes which gave us our great English classic in 1890. No one can now mistake the urgent timeliness of the activity of the lexicographers, who may, perhaps, give us the needed new terms for the old thoughts which in our vocable poverty must be still presented in their old literary rags.

At first blush it would seem that all the fine results of physiological and experimental analysis of human experience acquired during the last generation are thus to be swept away at a single sweep of negations. To the experimentally fed minds these generic doctrines of a non-analyzable, and a non-existent consciousness, if ‘sound,’ mean an abrupt end to psychology, which, in recent years has persistently and consistently labored to know the constitution of minds which exist without the pale of the trained psychologists. On the other hand, the

¹ *Outlines of Psychology*, 1903.

² Professor James, ‘Does Consciousness Exist?’ *Journ. of Phil., Psych. and Sci. Methods*, September 1, 1904.

necessity which Professor Royce feels constraining him to deal death-blows to the old-time 'elements' is evidence enough that such analysis is not the direction the science must now take in constructing its theory of mind. In fact, it may be construed as a belated reaction against the completeness of the earlier analyses, and a gentle hint that bids us look forward to an inspection and exhibition of the constructing processes which chance to make us what we happen to be. It is belated because no child is satisfied with stopping at a mere knowledge of the alphabet, albeit the twenty-six 'elements' enter into the structure of our language, and because the genetic mode of approach, instituted long since, tore away the abstractness originally adhering to every theory of elements, and later has spread over the entire field of psychological thinking.

In these recent discussions the assumptions of psychology, as a scientific inquiry, are left in a more stable condition than they were during the two earlier historic movements mentioned above. The present revision indicates that psychology is slowly but surely gaining a restoration of her once constructive influence upon a total view of experience, which usually goes by the name 'philosophy.' This comes out unequivocally in the recent widespread acceptance and defense of the 'functional' as over against the earlier 'structural' view of the science. It is not irrational to anticipate the early time when there will be a wholesome 'reconciliation' between these present warring factions. It would be utterly unbecoming to indulge in *dicta* and declare what this *aufgehobene* psychology is to be. And, finally, we need not be disturbed by the present revision of principles. It is the intensive rebound from the extensive reach of psychological method and adaptation which had so rapidly perfected its technique as to enter all possible fields of scientific exploitation, such as race, child, animal, and abnormal psychology attest. In beginning its work 'all over again,' the devotees rather naïvely begin at the first chapter of the new psychology that is to be. That this limitation to revision must not be construed too literally may be seen in the gradual perfection of two divergent psychological theories which flourish genetically in the hands of Professor Baldwin and President Hall. The value of genetic modes, on the one hand, and atavistic redintegrations, on the other, for the sum total of psychological presupposition and method must be left for treatment at another time.

Psychological method, to remark further, has also been subjected to fresh treatment and the results have shifted ground not a little. Instead of the older naïve realism or dualism which, it is now charged,

gave coloring to introspection and observation as modes of approach, there is now a ready inclination to agree that the two supposedly differing methods of science really and simply deal with one and the same object of experience. Whether a content of experience is objective or subjective, observed or introspected, depends only upon the attitude of the mind for the time being, which must always be either one or the other. Any mention of progress in method must include explicit reference to the extreme insistence upon accurate data and development of formulae for specific parts of experience which has been made by Professor Thorndike.¹ Eschewing speculative opinion, he calls for the employment of the methods of 'exact' science, a call which, as followed by himself, amounts to doing all the work over again. In fact this counter tendency is quite as revolutionary as that noted above.

A novel, and what may be a fruitful, addition to our psychological stock-in-trade in the matter of the classification of mental processes appears in Professor Royce's 'Outlines.' As against the old tripartite division of cognition, feeling, and volition, he presents 'sensitivity, docility, and initiative.' It should be noted that docility and initiative are not the equivalents of feeling and volition. His terms and their meanings have large biological import. Sensitiveness involves present environment, docility the acquisitions from past conditions, and initiative the variations which are spontaneous.

In the domain of the physiological conditions of experience two pieces of work, while tentative and limited, are among the most suggestive and important contributions appearing within our period. The electric theory of nerve commotion, so long a convenient mode of speech, now has to share some ground at least with the hydraulic theory of Professor Motora.² This view, in attempting to replace some of the defects in the old-time theory, suggests that neural discharge is 'the transmission of a wave produced in a liquid contained in a nerve fibre.' The theory of the hydraulic wave allows of a number of possibilities, as experimentally determined, and its author applies it in the explanation of attention and inhibition. It may in time come to upset our old law of specific neural function, which has been not infrequently disputed by facts hitherto.

Rieger's study of the muscles in action³ suggests new possibilities which await the theory of motor consciousness, and particularly the

¹ *Educational Psychology*, 1903, and *An Introduction to the Theory of Mental and Social Measurements*, 1904.

² 'A Study on the Conductivity of the Nervous System,' *Am. Journ. of Psych.*, July-October, 1903, pp. 329 ff.

³ 'Ueber Muskelzustände,' *Zeitschr. f. Psych.*, 1903, vols. 31 and 32.

interest in work and fatigue. He is led to regard the muscles as 'elastic bands whose contractile force is a function alone of their length and temperature.'

If we turn to the experimental division of psychological territory, it is found that the 'year' continues to teach us that we cannot construct our psychology by the mere enumeration of mental data, but that here we must also think. Theory continues to be as important as ever, in spite of the laboratory—and the questionary. One of the best indications of the steady growth of the science, particularly in America, where there is a frank willingness to give a thorough test to anything new that 'sounds good' and promises well, along the line of persistent acquisition of first hand data, is the extensive statistical inquiry of Professor Cattell.¹ From it is to be gathered unmistakably that experimental achievements constitute the dominant lines of interest. With this there stands also the descriptive record of the improvements current in laboratory psychology among American institutions, made for 1904 by Dr. Miner.²

Two significant productions born in the laboratory and appearing within our period possess qualities which will doubtless give them vitality for some time to come. And, oddly enough, each expresses the extremes of perfected technique and finished results which can characterize the aims of exactness and the longings for speculative interpretation. Professor Stratton's book³ is one of the most idealistically flavored productions of the times. Strong and helpful in its fundamental field, it also changes the spirit and direction of meaning in all experimentation and tends to unify the complex interests of the science. It is almost equivalent to a restoration, and ought to elevate the dignity of the laboratory inasmuch as it is probably the first conclusive and consistent reply from the laboratory to the earlier objections made against the introduction of such methods by the armchairists. Educationally it would be a fair question if one inquired seriously whether the grace and scholarship of this work are themselves direct resultants of psychological experimentation. Müller's timely manual⁴ for psychophysics is also timely in convincing us that a greater synthetic, as well as a more pronounced simplifying activity is prevalent among those whose mastery to-day is giving direction for the morrow.

¹ 'Statistics of American Psychologists,' *Amer. Jour. of Psych.*, July-Oct., 1903, p. 310 ff.

² 'The Changing Attitude of American Universities toward Psychology,' *Science*, Sept. 2, 1904, p. 299 f.

³ *Experimental Psychology and its Bearing upon Culture*, 1903.

⁴ *Die Gesichtspunkte und die Thatsachen d. psychophysischen Methode*, 1904.

This excellent work appearing at a time when there is a critical disposition towards the 'questionary' and the 'test' as definite methods of inquiry is indicative of general progress. This is also marked in the contributive systematic work Professor Titchener continues in the better pedagogy of experimentation.¹ The new investigations, according to the best indications, which fall short of definite counting, center about visual sensations and ocular movements, with illusions tending to occupy the center of interest. That there is much gain to be derived from more extensive reinvestigations in experimental topics is conclusively shown in the newer measurement of the threshold of sensibility of contact made by Binet.²

Interest in the higher mental processes has centered upon 'judgment' or 'thinking,' concerning which many reconstructive theories are in the air. This movement is identical with that mentioned above with respect to the revision of the aims and conceptions of the science. Its tangible asset is found in the conclusion which reduces all 'consciousness' to the logical relationship expressed by the copula, which is identical with the 'feelings of resistance and tension,' or the teleological import of ideas, namely action. This movement, which reinvests the mechanics of Hegelian dialectic and the statics of Herbartian psychology, historically speaking, is more of an episode in psychology but vital in logic and philosophy, as appears in part in Professor Dewey's 'Notes upon Logical Topics: I.'³ Another episode touching the modification of psychological content adjusted to a determinate interpretation of method appeared in Losskij's work,⁴ which restricts itself to the central principle adopted by Wundt, for example. With him the material of the science consists, not of the given states of consciousness, but only of such experiences as can be and are recognized as 'mine.' And all such events are regarded as acts of will. This apparently arbitrarily restricted material might, perchance, replace the void left by 'blotting out consciousness' as demanded by Professor James. At least Losskij's attempt reminds one of Rehmke's work a few years ago, both of which show how consistent psychological thinking may become when restricted to a specified content.

In the psychology of feeling there is a current disposition to call in question Wundt's tri-dimensional analysis into 'pleasure-displeasure,'

¹ 'Class Experiments and Demonstration Apparatus,' *Amer. Journ. of Psych.*, July-October, 1903, p. 175 ff.

² *L'Année psychologique*, 1903, pp. 79-252.

³ *Journ. of Phil., Psych. and Sci. Methods*, February 4, 1904, p. 57.

⁴ *Die Grundlehren der Psychologie vom Standpunkte des Voluntarismus.* (Uebers.) 1904.

'excitement-depression,' and 'tension-relief.' This appears in Royce's novel theory which presents only two rudimentary forms of feeling: 'pleasure-displeasure,' 'restlessness-quiescence.' Aesthetic psychology is not only receiving additional attention, but it is enjoying in our period the satisfaction of being massively systematized by its chief master, Lipp, whose first volume¹ has been at hand for a short time only. The theory of *Einfühlung* continues to be advocated advantageously—and beauty is extended over both form and content. That his general theory is central is partly indicated by Külpe's negative results experimentally determined. Witasek² has also contributed to this aesthetical reconstruction by his final identification of aesthetics with psychology, placing his emphasis upon the constant necessity of causal explanation.

The momentum acquired some years since by social and genetic psychology carries these interests forward to one of the commanding positions in our year. Among those psychologists who are more inclined to social phenomena, there is a marked tendency to agree that a so-called 'social mind' does not exist, and that social phenomena do not exist apart from the individual. Social psychology now tends to devote itself to a study of the individual mind in so far as it presents what is known as 'group consciousness.' When this theory is carried over to the child or to the race, social psychology readily falls into the keeping of a genetic psychology in so far as the later becomes more than a mere method. There is danger in a tendency of the systematic psychologists to play too freely into the hands of the social relationship for explanatory factors, as, for example, Royce (p. 295), who interprets the development of reasoning as due solely to the *socius*. On the other hand, that there continues a steady widening of the psychological point of view, hesitating not before the needs of a cool dissection of our practical living, is evidenced by Veblen³ and Scott.⁴ In the region of individual psychology the year has, through the final completion of President Hall's task,⁵ been instructive in showing how a new theory of mind can ultimately flourish on an originally restricted method, and also in illustrating how psychology may become 'applied' by resting in close relation to other points of view. Synthesis and theoretical reconstruction continue to dominate even in this remarkable contribution to our current literature.

¹ *Grundlegung der Aesthetik*, I. Tl., 1903.

² *Grundzüge der allgemeinen Aesthetik*, 1904.

³ *Theory of Business Enterprises*, 1904.

⁴ *The Theory of Advertising*, 1904.

⁵ *Adolescence: Its Psychology, etc.*, 1904.

In abnormal psychology, besides the steady reconstruction of psychiatry under the influence of a sound and generous psychology, ably exhibited by Professor Meyer,¹ there has appeared what promises to be a final emancipation from the Lombrosian theory of genius. At any rate, Nazzari² presents a significant reaction against that view which placed the genius and the insane in the same group relative to the productive conditions. For him, genius continues to be abnormal, but not the exceptional.

We should be carried too far afield to specify, further than has been indicated once or twice above, the renewed bearings of psychology upon those bantering philosophical novelties which are current under such terms as 'radical empiricism,' 'humanism,' 'pragmatism,' 'instrumentalism.' Instead of this, our selective account ought to render a true count of 'how many' works our science has presented. This is impracticable, further than the following resort to numbers indicates.

The Psychological Index is an 'index' in more ways than one. And, in the present connection, it is readily useful in giving a good measurement of the annual variation of the intensity of interest (measured extensively *only*) in the generic topics with which the psychologists are engaged. A comparison of the output of 1902 with that of 1903³ (excepting the few belated entries, of which account need not be taken), is presented in the following table. It cites the number of entries under the rubrics adopted by the *Index*, arranged in ranking order according to the volume of interest.

1902.		1903.	
No. of Titles.	Rubric.	No. of Titles.	Rubric.
448	Genetic, individual and social psychology.	384	Higher manifestations of mind.
404	Anatomy and physiology of the nervous system.	373	Genetic, individual and social psychology.
385	Higher manifestations of mind.	337	Sensation.
355	Sleep, trance and pathology.	271	Anatomy and physiology of the nervous system.
346	Sensation.	219	Sleep, trance and pathology.
203	General.	174	General.
184	Conation and movement.	118	Cognition.
180	Cognition.	102	Conation and movement.
78	Characters of consciousness.	66	Characters of consciousness.
45	Affection.	38	Affection.

Aside from the shifting which appears among the first five rubrics, the table needs no specific comment. It will be interesting to learn

¹ In the PSYCH. BULL., Nos. 7-8, June 15, 1904.

² *Le Moderne Teorie del Genio*, 1904.

³ *The Psych. Index*, Nos. 9, 1903, and 10, 1904.

later what the measurement of interest is to be for 1904. On another occasion, space may be afforded for a detailed study of psychological 'currents and under-currents' gauged by the chronicles of the *Index*.

There remains for brief recall a mention of the excellent external aspects presented by the science during the year. Readjustment is here also the characteristic term to be applied. In the matter of congresses and other forms of association more or less permanent, psychology has fared well during the year. The St. Louis 'International Congress of Arts and Science,' was designed to be synthetic of human knowledge, and stands accredited to psychology, being largely the expression of the persistent idea of one of our psychological leaders. The experimentalists have indicated their adhesiveness probably for the first time during 1904. On April 4, the American experimentalists got together informally at the Laboratory in Ithaca, and on April 18, the new 'German Association for Experimental Psychology' was held in Giessen. The year also saw the organization of the 'Southern Society for Philosophy and Psychology' designed to quicken the newer movements in the southern section of the United States.

A better index of the fruitful activity among psychologists is to be found in the readjustment of old and the establishment of new periodicals. This journal adjusted itself to newer needs by dividing into the *Psychological Review* proper and the *PSYCHOLOGICAL BULLETIN*. The old *Journal of Comparative Neurology* became the new *Journal of Comparative Neurology and Psychology*. The *Journal of Philosophy, Psychology and Scientific Methods* was instituted and offers a program highly suggestive of a reaction against over-specialization. Psychology is the gainer, doubtless, thus bulwarked between the end and the means of human knowledge. The *British Journal of Psychology*, also new, indicates a healthful growth into specialization across the seas. France added to her periodical list the new *Journale de Psychologie Normale et Pathologique*. To this list also properly belongs the earlier change of the old *Philosophische Studien* into the *Archiv für die gesamte Psychologie*.

1904 also showed that psychology is more and more mindful of its indebtedness to the past. The February commemorations of Kant and the November commemorations of Locke called attention to the solid historic piers upon which the science rests and taught the world anew that no science can live by itself alone. Another event of the year, which, by contrast, is turning its face to the future, was the installation of the new department of philosophy and psychology, with a promising laboratory complement, at the Johns Hopkins University.

PSYCHOLOGICAL LITERATURE.

THEORY AND PROBLEMS OF PSYCHOLOGY.

Does 'Consciousness' Exist? WILLIAM JAMES. Journal of Philosophy, Psychology and Scientific Methods, no. 18.

A World of Pure Experience. WILLIAM JAMES. Ibid., nos. 20, 21.

Taking occasion of the 'curious unrest in the philosophic atmosphere of the time,' Professor James has made in these three articles a notable contribution to that unrest. It is an all too brief description of his own Weltanschauung, which he calls radical empiricism—the adjective connoting the absolute, thorough-going character of its fidelity to an empirical basis. "To be radical," he says, "an empiricism must neither admit into its constructions any element that is not directly experienced, nor exclude from them any element that is directly experienced. For such a philosophy, the relations that connect experiences must themselves be experienced relations, and any kind of relation experienced must be accounted as real as anything else in the system." It is a philosophy, like every other, of terms and relations; the peculiar thing is that it takes account of both in strictest fidelity to experience. Take, for example, an act of perception, involving a self, a thing, and the cognitive relation. We certainly can affirm nothing of the self save what it is experienced to be; it is, then, a group or context of bits of experience, connected by a certain experienced relation. So too is the thing a group or context of bits of experience, connected by some experienced relation—the difference of the relation within the thing-group from the relation intrinsic to the self-group being for the moment left out of account. Finally, the cognitive relation itself is one given in experience. The whole matter, then, is to be described in experiential terms, and there is nothing supernal or trans-experiential about it.

What saves this from the atomistic particularism of ordinary empiricism is its radicalness. "Ordinary empiricism, in spite of the fact that conjunctive and disjunctive relations present themselves as being fully coördinate parts of experience, has always shown a tendency to do away with the connections of things, and to insist most on the disjunctions." The consequence of this arbitrary rejection of some of

the relations given in experience, has been rationalism's effort at correction by the addition of new terms, not experiential, as substances, intellectual categories and powers, or selves, to bridge the gaps thus made. But correlative with radical empiricism's view of terms as experiential only, is its treatment of relations as given in experience; it takes conjunctive as well as disjunctive relations, each at its face value, and thus has need of no trans-experiential terms. By doing full justice to the 'plain conjunctive experience,' it opposes both rationalists and ordinary empiricists. Relations, of course, are of 'different degrees of intimacy,' standing for different 'grades of unity' in the universe of experience. From mere 'withness,' conjunctive relations ascend in order of intimacy and inclusiveness through time-relations and space-relations, similarity and difference, relations of activity and the causal order generally, to the most intimate of relations, that of continuous, co-conscious transition experienced between the bits of experience that go to make up the life of a self.

Our world, then, is a world of pure experience; and by pure experience James always means 'the instant field of the present.' Pure experiences are the 'bits' that make up selves, things, the whole world — though we must take care that words do not mislead us here. There is no particular bit, no sharply defined field of the present, that needs to be joined to others in some external way. "In actual experience the more substantive and more transitive parts run into each other continuously. * * * One moment of experience proliferates into the next by transitions which, whether conjunctive or disjunctive, continue the experiential tissue." Bearing this qualification in mind, we may speak of particular experiences, or bits of experience. We see, at any rate, that from one point of view, it may be affirmed that there is no other stuff or material out of which everything, selves and things alike, is composed, than pure experience.

"The first great pitfall from which such a radical standing by experience will save us is an artificial conception of the *relations between knower and known.*" Throughout the history of philosophy, representative theories with their idea, common-sense theories with their leap, and transcendentalist theories with their Absolute, have alike proceeded upon the assumption that the subject and its object are absolutely discontinuous entities. "All the while, in the very bosom of the finite experience, every conjunction required to make the relation intelligible is given in full. Either the knower and the known are (1) the self-same piece of experience taken twice over in different contexts; or they are (2) two pieces of *actual* experience belonging

to the same subject, with definite tracts of conjunctive transitional experience between them ; or (3) the known is a *possible* experience either of that subject or of another, to which the said conjunctive transitions *would* lead, if sufficiently prolonged."

Professor James takes up these types in some detail. Type 1 is perceptual knowledge, and is discussed in the first article, together with general considerations touching the dualism which this philosophy is to replace. Experience has no such inner duplicity as is maintained by the naïve dualism of matter and spirit, or signalized by the conception of 'consciousness' in such philosophy as that of the neo-Kantians, for whom consciousness means no more than that object-plus-subject is the minimum that can actually be. The dualism is not within, but without, the single bit of experience; it is a matter of its context, an affair of relations between particular pieces of an absolute experience. "A given undivided portion of experience, taken in one context of associates, plays the part of a knower, of a state of mind, of consciousness; while in a different context the same undivided bit of experience plays the part of a thing known, of an objective content. In a word, in one group it figures as a thought, in another group as a thing. And since it can figure in both groups simultaneously we have every right to speak of it as subjective and objective both at once." Perception is the intersection of the group which forms an individual life with the group which forms the history of a thing; and at the intersection the same undivided bit of experience is in both contexts, just as one identical point is in two lines which intersect. It must be carefully remembered, however, that "no dualism of being represented and representing resides in the experience per se. In its pure state, or when isolated, there is no self-splitting of it into consciousness and what consciousness is of. Its subjectivity and objectivity are function attributes solely, realized only when the experience is 'taken,' *i. e.*, talked-of, twice, considered along with its two differing contexts respectively, by a new retrospective experience, of which that whole past complication now forms the fresh content." In answer to the objection that in the two takings, as thought and as thing, the attributes of the bit of experience differ fundamentally, James shows that this difference between objective and subjective qualities is one of relation to a context solely.

Types 2 and 3, since the latter can always be hypothetically reduced to the former, are considered together in the latter two articles, with the more formal statement of the theory as a whole. The intrinsic quality of an image does not make it cognitive; extrinsic

experiences of conjunction are what impart to it its knowing office. Conceptional cognition is *made* by 'intermediary experiences (possible, if not actual) of continuously developing progress, and, finally, of fulfillment, when the sensible percept, which is the object, is reached.' In itself, the concept is but a 'flat piece of substantive experience like any other, with no self-transcendency about it'; but when the intermediary process is fulfilled, it becomes a knower, and the object reached is seen to be what it meant or knew. "The object here not only *verifies* the idea, proves its function of knowing that object to be true, but the object's existence as the terminus of the chain of intermediaries *creates* the function."

Until actually established by the end of the process, then, conceptual knowing is virtual; it can be doubted, but the fulfillment reacts to show that it was knowing all the time. The greater part of our knowledge never gets beyond this virtual stage, yet is the substitute, in all practical operations, for what it means or would know absolutely if the transitional progress to the object were completely carried out. This is all that there is in 'objective reference'; it is 'a mere incident of the fact that so much of our experience comes as an insufficient and is of process and transition.' And this is all that we need for living and acting; self-transcendency in knowledge, if it were true, could do no more for us. Pure experience, the immediate present, is always practical truth, something to act on. The morrow, looking back at it, may reduce it to 'opinion'; but the transcendentalist in all his particular knowledges is just as liable to this reduction.

In conclusion, Professor James points out how, through the 'conterminousness of different minds' which this theory makes possible, it has more affinities with natural realism than with the idealism of the English school; and indicates briefly the sense in which it involves a pluralism. "In my own mind," he says, "such a philosophy harmonizes best with a radical pluralism, with novelty and indeterminism, moralism and theism, and with the 'humanism' lately sprung upon us by the Oxford and the Chicago schools."

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The Conception of Experience in its Relation to the Development of English Philosophy. T. M. FORSYTH. Mind, N. S., 1904, XIII., 394-409.

This paper takes up the philosophies of Locke, Berkeley, Hume, Reid, Hamilton, Mill, Ferrier and Grote, and considers them just in

so far as they bear on the nature and source of experience. There pervades them all, despite the various forms of its expressions, the theory that all true philosophy must be based on experience.

Locke divided the source of experiences into sensation and reflection. The first was, however, the more fundamental of the two. The mind could be engaged only on or about objects which had previously come into impressional contact with the senses.

While Berkeley had questioned the propriety of asserting that the data of sense were the sources of knowledge, he drifted into such phraseology in the *Principles*. Later, however, in the *Siris*, he returns to his earlier view and opposes Locke's plan of mixing the ideas of reflection and those of perception. This he does by distinguishing between them. He calls the first 'notions'; the last 'ideas.' His 'notions' were peculiarly active.

Hume, while differing in detail, makes his 'impressions,' like Locke's 'ideas,' entirely passive in nature. This is all a result, more or less direct, of the sharp line distinction which Locke and Hume endeavored to draw between mind and matter.

Hume identified idea with existence. Reid asserted such a conclusion to be too far from common sense to be true. But he was compelled to pronounce just the deduction of such conclusion from the premises they asserted. Hence, his only means of refutation was an attack on their premises. Reid denied that 'to have an idea of anything and to have an idea of its existence were one and the same.' He claims that even when the object of knowledge is an idea, the difference still exists.

Hamilton differed from Reid in one point: viz., that objects other than states of consciousness were not objects of experience. This statement he would never admit, for he steadfastly maintained that all ideas were abstractions from what he believed to be the primary act of the mind; viz., judgment.

The associational philosophy, best expounded by the younger Mill, endeavored to merge the views of the systems of Locke and Reid. Mill denies the mediacy of states of consciousness. Not as to the validity of these states, but to a knowledge of their nature, Mill asserted attention should be directed.

Ferrier, while quite antagonistic in spirit, really supplements the work of Hamilton and Reid. To him experience seemed to originate, not in some impression from without, nor yet in mediate knowledge of facts of consciousness, but in an apprehended something, which, while distinguishable, was yet inseparable from its apprehension.

It was Grote, however, who presented most clearly the conception which underlies present-day philosophical discussions. He did not begin with assumptions. Experience was to be described, not defined. It was a notice of facts, or facts presenting themselves to our notice. The distinction subject and object are all right and good. But they have not part in the sources of our experience, but are determinations of it.

Experience, then, looked at in the light of English philosophical history, is not to be explained by definition; but can only be gradually characterized by the progressive coincidence of notice, or apprehension, with immediacy.

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The Present Problems of General Psychology. JAMES WARD.
Philos. Review, 1904, XIII., 603-621.

The definition of psychology is one of the present problems.

Next to that is the problem of subject activity, in regard to which two views have been held. The objective psychologists or presentationists, of which the Herbartian psychology is the classic example, claim that things given are combined according to mechanical laws. The subjective psychologists, followers of Descartes, Locke and Berkeley, 'recognize the necessity of a subject from the outset whenever we talk of experience.' The criticism of the latter is that 'such bare unity of the subject will not suffice to explain the unity of experience.' The former is incomplete; impersonal, unowned experience is a contradiction. A mediating view between these antitheses which is similar to Wundt's actuality theory is developed by Ward. Subject and object are counterparts, and experience is the interaction between them. But subject activity itself is a problem to which these solutions have been propounded: "(1) Subject activity is a fact of experience, but psychology cannot deal with it, because it is neither describable nor explicable. (2) Subject activity is not a fact of experience, but it is a transcendent reality without which psychology would be impossible. (3) Subject activity is neither phenomenal nor real: the apparent 'originality' or 'spontaneity' of the individual mind is, for psychology at any rate, but the biologist's 'tropisms.'" Ward expresses sympathy with the second view.

The third problem centers about the atomistic theory. Its prevalence in psychology is due to the invasion or imitation of the physical and chemical sciences. The main criticism of it is that the functional unity of the brain or of the mind is never deduced from a mere aggre-

gate or manifold of particulars. 'The categories of mechanism and chemism are inadequate and inappropriate to the living world.' Simple sensations are not given in a disorderly way; hence, there is no need of atomism to construct a systematic order among them. 'Presentations have none of the essential characteristics of atoms.' Associations are formed not by any inherent adhesion in the sensations associated, but by the fact of being attended to together. This involves the problems of memory and subconsciousness.

At the end other less important problems are mentioned: the genesis of spatial and temporal perception, the psychology of language, and the psychology of intellection.

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A Study in Consciousness. A Contribution to the Science of Psychology. ANNIE BESANT. New York, Lane, 1904. Pp. x + 443.

"This book, which, the author says in her preface, does not pretend to be a complete exposition, but rather, as its subtitle says, a contribution to the science of psychology, gives a comprehensive survey of the evolution of consciousness in the planes and subplanes of its unfoldment. As an introduction to the subject, Mrs. Besant has set forth the theory of creation of our solar system; and with some description of the origin of monads, she goes on to a discussion of the field of their evolution; the peopling of the field by the monadic life; the properties of the atom as a psychological unit; the mechanism of consciousness, its development into human states, and the nature of memory. This comprehensive presentation of the subject, which is of the greatest importance to all theosophical and psychological students, has been awaited with great interest, and though the author speaks of it modestly as a forerunner in a field which will yield more promising results when the materials for such study are better known and digested, is of itself a book that will be found essential to all who desire to keep abreast of the newest and best considered philosophical thought." [Publisher's Note.]

On Truth and Practice. F. H. BRADLEY. Mind, N. S., XIII., July, 1904.

The pragmatism which Mr. Bradley combats is not the pragmatism of philosophy but of life. Unfortunately the representative of pragmatism whom Mr. Bradley chiefly answers has vitiated his argument by being neither calm nor judicious in his advocacy of the new gospel.

In his eagerness to establish the new he has gone out of his way to rail at the old and has in so far forfeited his credentials. Fortunately, however, there are those who are more conservative — even to the extent of questioning the qualitative capacity of the term pragmatism to satisfactorily characterize this new phase of philosophic insight.

The argument of the paper is largely confined to a justification of the denial that 'truth essentially consists in the mere practical working of an idea,' and involves a statement, first, 'of the reason why the ultimate criterion cannot be merely practical; second, of some objections to any gospel of practice for the sake of practice; and third, of the senses in which all truth may be regarded as practical.' In brief, the argument may be summarized by the statement that truth is intellectually and not practically derived. In a preliminary remark Mr. Bradley challenges the 'Pragmatist' to silence or dispel the prejudice of intellectualism. Regarding this intellectualism, while he agrees that 'there is no such existing thing as pure thought,' yet he adds: 'If in the end there is to be no such thing as independent thought, thought, that is, which in its actual exercise takes no account of the psychological situation, I am myself in the end led inevitably to scepticism.' Here, repugnance to scepticism seems to be the reason for the conservation of intellectualism.

1. *It is maintained that truth does not consist essentially in the mere practical working of an idea.*

"At an early and unreflecting stage of mind no idea will be retained unless it works practically, * * * but that truth's essence even here lies wholly in such working * * * seems not permissible." "Everywhere in conation and will," says Mr. Bradley, "there is an idea which is opposed to existence, and this existence nowhere is characterless, but it is a determinate being. And the character of this being is an element in the whole situation, and dictates to the idea as well as submits to dictation." The essence of truth consists in the correspondence between the idea and the determinate being. This he proceeds to show, first, on the positive side, then on the negative, where in failure and in falsehood we meet the opposite truth, experience being considered at a stage where reflection is possible. His contention is that in suffering and death the idea meets the situation theoretically and not practically. The instrumentalist would, of course, reply that the situation admits of only the theoretical activity. Thinking *is* doing. The situation is rationalized by the specific sort of reaction to it which we denominate thinking. An attitude is the outcome of the thinking and the attitude is the essence of the truth in the situation for the organism.

2. "*The gospel of practice for the sake of practice and everything else for the sake of practice.*"

"My practice," Mr. Bradley says, "may be called in general the alteration by me of existence inward and outward, and 'existence' we may understand as what happens or as the series of events." He further defines it as a 'mere quantity of being and change,' 'mere increase of being apart from quality' and adds: 'Unless I am to take mere quantity of doing as my end, I can myself find in the end no sense in the cry of practice for practice sake.'

If by pragmatism as a world-view is to be understood the advocacy of a mere increase in the momentum of a dizzy whirl, the sooner a halt is called the better for both philosophy and life. Doubtless some expressions may be so interpreted if conservatism can find no more in the term practical than its usual connotation in the market-place. But we do not apprehend that it is to be so understood or is so used by such writers as James, Dewey, Bawden, *et al.* And Mr. Bradley himself is not unaware of a legitimate distinction which involves another meaning, for he recognizes 'a failure to use words on each side with a common meaning.' And this we believe to be the vital point of the whole discussion. It is a legitimate undertaking — this reinterpretation of a term which has suffered violence in the market-place. But Mr. Bradley clings to the latter use of it and so finds no sense in this 'new gospel.'

"'Beauty,' as well as 'truth,' are realizations in the attitudes of *mere*¹ theory and of *mere* apprehension and are not, therefore, practical."

"Beauty is from one side independent of our wills. It is an end, the specific nature of which is not subject to our choice and cannot consist in a relation to anything else which is so subject; if truth and beauty have this character and if they are human ends, then clearly we have ends which are not practical."

"They are practical incidentally, but not in their essence."

Theoretically, then, for Mr. Bradley, 'theory and practice,' as he says in his caveat, 'are one.' But practically they cannot be conjoined, for he finds place for *mere* theory and *mere* apprehension on the one side, and *mere* practice on the other.

Is it not legitimate to ask Mr. Bradley if there is not a discrepancy in the position in which, on the one side, he can affirm that theory and practice are one, and on the other that there is such a thing as *mere* theory and *mere* apprehension, distinguishable from, and diametrically opposed to, *mere* practice?

¹ Italics ours.

If theory and practice are one, surely it is possible to show how they are one, and this is the essence of the recent logical studies. Theorizing is the ultimate form of practice, without which all practice would be reduced to the chaotic procedure typified by a dizzy whirl.

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Mind and Body in Recent Psychology. A. E. TAYLOR. *Mind*, N. S., 1904, XIII., 476-508.

"The aim of this paper may be stated in a sentence: it is a defence and a modified restatement of the old doctrine of interaction as, at present, the most satisfactory theory of the connection between body and mind." The interaction theory presents difficulties, but these are the difficulties of understanding the nature of any transeunt action, and not, like those of the theory of parallelism, due to gratuitous metaphysical assumptions.

Interactionism, on the one hand, is explicitly put forward as working hypothesis and not as ultimate metaphysical truth. On the other hand, it purports to harmonize this working hypothesis with all that is true in the parallelistic and identity hypotheses.

The argument proceeds on the lines familiar to students of Mr. Bradley and Professor Ward, but claims to give an independent formulation. It is supplemented by a critical examination of the parallelistic views of Stout, Ebbinghaus and Münsterberg.

The author sets out from the standpoint of Avenarius, that 'this distinction between mind and body, whether as two things or as two aspects of one thing, cannot arise so long as we are engaged exclusively in the interpretation of our own individual experience.' "It is only when I come to describe my social environment, my fellow-men and my animal congeners, that I feel any need to split up the individual center of experiences into two parts or into two aspects, and when I ascribe the resulting duality of parts or aspects to my own self I am reinterpreting my direct experience in terms derived from my theories about my fellows." The necessity of intercommunication in organizing our scientific view of the world requires the abstraction from the immediate and concrete whole of our experience of the aspect which is capable of being shared in by more than one individual. Thus arises the conception of the external world or physical order. Whatever elements or aspects of a concrete individual experience refuse to admit of this analysis belong to a different order—the psychical.

Our fellow-men are obviously members of this physical order. But they differ from other physical objects in being also more than this. For they coöperate with me and with other humans in building up what we call experience. "Hence over and above their existence as * * * members of the physical order, my fellow men must have another kind of existence of the same sort as that of which I am directly aware in my own experience of myself as a center of immediate feelings, cravings and purposes. On this side of their existence they belong not to the physical order, but to a social * * * and therefore, essentially non-physical."

"And the result won originally from analysis of the existence of my fellow men is necessarily read back into my own interpretation of my own existence. As I directly experience myself, there is * * * no duality of factors. * * * But with the need of mutual intercourse * * * I need to describe myself in terms equally intelligible to all the members of my social group." "Hence I too come to be thought of as having a double existence. For my fellows' senses and for my own, I am a member of the physical order; * * * for my own direct experience I am a striving, feeling being of an essentially non-physical type. With the development of human coöperation and the systematic description it necessitates, the original unity of direct self-experience is replaced by the dualism of myself as an object of description, my body, and myself as sentient and purposive, my mind. Now arises the question, how the two sundered aspects of the original unity are for science itself to be once more reunited, and this question constitutes our psychophysical problem of the connection between body and mind."

"When once we have come * * * to conceive thus of the bodies of our fellows and ourselves as physical objects capable of direct description in general terms, it inevitably follows that all that is unique and individual in our experienced life, *i. e.*, all initiation of *fresh* purposive reactions, has to be relegated to a psychical order falling outside the physical. And as practical experience shows us that all real life involves the element of *fresh* purposive reaction at every instant, we are inevitably compelled to translate the purposiveness of concrete experience, for our scientific objects, into a *connection* between two distinct things, a physical and a non-physical or psychical system. There is no logical contradiction in thus treating for the special purposes of our science as *two* things what from another point of view must be regarded as *one* thing; for * * * the same reality is rightly regarded as one or as many according to the nature of the special interests with which we approach it" (p. 482).

This is the conclusion of the constructive part of the author's discussion. He next turns to a consideration of the respective arguments for interaction and parallelism, and gives his reasons in more detail for preferring the former. These reasons, in brief, are, first, Mr. Bradley's logical contention that a cause or an effect is always a complex of the psychical and physical factors; secondly, Mr. Ward's argument that a strict parallelism throws one back logically upon a psychological atomism; thirdly, that there are 'forms or, at least, aspects of mental function to which there is in strictness no physical counterpart.' Against all this, parallelism opposes three main considerations which are also refuted in detail: (1) "There can be no interaction between absolutely disparate realities. The reply is obvious. If the realities are really absolutely disparate, neither can there be exact correspondence." (2) "It is said that interaction between the mental and the physical must from its supposed character be ultimately unintelligible. But this neither refutes nor supports parallelism or interaction: it simply says that we do not know how it takes place." (3) That if interaction is admitted 'it involves a breach with the purely mechanical theories of natural process.' But interaction is inconsistent with the doctrine of conservation of energy only for a mechanical philosophy which mistakes the abstractions of its descriptive method for the concrete realities of experience.

In his recently published 'Elements of Metaphysics,' the author brings out with even more clearness the methodological character of the distinction, as when he says (pp. 331-332) that interaction is "no statement of actual experienced fact, but a working hypothesis for the convenient correlation of two scientific constructions, neither of which directly corresponds to the actualities of experience. This means, of course, that interaction cannot possibly be the final truth for metaphysics. It cannot ultimately be the 'fact' that 'mind' and 'body' are things which react upon each other, because, as we have seen, neither 'mind' nor 'body' is an actual datum of experience; for direct experience and its social relations, the duality subsequently created by the construction of a physical order simply has no existence." "The proposition that the psychophysical theory of the 'connection' of 'body' and 'mind' is an artificial transformation, due to the needs of empirical science, of the actual teleological unity of human experience, is sometimes expressed by the statement that mind and body are really one and the same thing." Yet the author adds that, "though 'mind' and 'body' in a sense mean the same actual thing, the one stands for a fuller and clearer view of its true nature than the other," thus adopting

essentially the same position as that of Mr. Stout, in the first edition of his *Manual of Psychology*.

This one-sided spiritualistic interpretation of the methodological distinction is the chief point which comes up for criticism in the reviewer's mind. In the first place may be questioned the asserted fact that 'for my own direct experience I am a striving, feeling being *of an essentially non-physical type*' (italics mine). It seems truer to the naïve point of view, and also more consistent with the author's own words in other passages, to say that if we take experience *before* this distinction between mind and matter has been set up, it is both or neither psychical or physical, and not one of these to the exclusion of the other. The 'original unity of direct experience' is no more psychical than it is physical, and the one is no more immediate than the other. The same confusion runs through Mr. Ward's treatment of the subject and that of Mr. Stout until he corrected it in the second edition of his *Manual*.

To be more explicit, Professor Taylor says that 'for my own direct experience I am a striving, feeling being of an essentially non-physical type.' But how can that be if, as he likewise says, 'I, as I am for myself in direct self-experience, am neither body nor mind'? If the duality is a methodological one merely, then is he entitled to exalt one abstraction over the other when he comes to reinterpret the concrete experience in terms of these abstractions? If we have arrived at the point at which we can speak of the '*purposiveness* of concrete experience' (italics mine), then that experience is no longer 'concrete' in the sense indicated in those passages in which the author says that the distinction has not yet been set up, and certainly, after this distinction has been set up, the psychical (or the purposive, which the author uses interchangeably with it) cannot be set up as a 'connection' between itself and the physical, as it is in the passage quoted above from p. 482. Professor Taylor frankly identifies the psychical and the teleological or purposive, but does not seem to realize that this, on his own theory, precludes him from regarding it as synonymous with naïve concrete experience.

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On Mechanical Explanation. EDGAR A. SINGER, JR. Phil. Rev., 1904, XIII., 265-283.

This article is a discussion of the hypothesis that all the phenomena of the world are susceptible of mechanical explanation. The discussion is divided into two parts: first, there is set forth the defini-

tion of the mechanical ideal; second, the possibility of such an ideal is discussed.

In a vague sense the mechanical ideal is fairly well understood. But an exact statement of the conditions to which it must comply is not forthcoming. To begin such a task, the suggestion which is at once the most natural and most in accord with historical development would view this ideal as a series of subsumptions. These subsumptions must be of such a nature as to make possible the reduction of each science to the one just below it. And the last science must of course be a science the phenomena of which need no explanation. This science, as the phrase implies, would be a science of mechanics.

The task, then, is to determine whether the sciences can be arranged in such a series of subsumptions; and to define mechanics according to the above limitations. After these questions are properly disposed of, the second phase of the question, that of the possibility of such an ideal, may be taken up.

Since the first question is conditioned on the last, first, a definition of mechanics is given. But how can a science be defined? Certainly best by its 'dimensions.' By 'dimensions' is meant the data necessary to derive a formula by which calculation can be made concerning things which are governed by the laws of that science. An illustration may clarify this definition. The four dimensions necessary to calculations regarding the Laplacean system are called its dimensions. They are time, length, mass and velocity. These, however, may be reduced to three: time, length and mass; velocity being a combination of length and time. By this reduction simply the dimensions of the science of mechanics are given.

The arrangement of the sciences in a series of subsumptions is very easy so long as we confine ourselves to branches of physics, such as thermodynamics, electrostatics, and electrodynamics. Even chemistry, since the recognized division of a compound into additive elements is considered, can be more or less readily reduced to a science of mechanics. Greater difficulty, however, arises when we undertake to reduce to mechanics sciences like biology, psychology and sociology. This difficulty is met, however, by the fact that all of these sciences can be reduced to the science just below, and thus on down the scale to mechanics.

As to the other part of the discussion, the possibility of the ideal, it has been urged that such an ideal is self-contradictory; and that, even if it were consistent, it would be untrue to nature.

The ground upon which the first objection is based is that it is

impossible to define the dimensions, length, time and mass, in any definite and absolute way. In reply it might be said that, though definition has been and is yet faulty, no inadequacy has been discovered which has been beyond remedy.

The second objection is advanced by heirs to the Aristotelian doctrine that 'everything in nature takes place for an end.' The science of biology is the most representative science bearing out the Aristotelian point of view. It will, therefore, be taken to represent this objection. While this science is most remote from explanation by the mechanical ideal, it nevertheless uses the descriptions and analogies of mechanics to describe its own phenomena. The very same style of description, except for the substitution of the 'existence' of the atom for the 'life' of a cell, would have served Newton in depicting the anatomy and physiology of physical bodies. The descriptions used to illustrate the life of the organ are borrowed from chemistry. True the cell is called 'living,' but the 'living' is as yet merely assumed.

A quite lengthy quotation from Driesch shows that in biology there are many things which cannot be explained without the aid of non-mechanical devices. But, while this is true, it remains to be proved that the use of these aids is permanently essential. It may be they are valuable while we await a better mechanical insight; or, even if permanent, their value may consist in the fact that they serve as mechanical devices.

Then, if biology fails to demonstrate the inadequacy of the mechanical ideal, it is certain that no fear need be had from the other sciences. The entire discussion has been relative to one alternative; viz., that of order under another kind of law than mechanical law. And it is shown more or less accurately that there is no justification for predicting the failure of the mechanical ideal in explaining the phenomena of the world.

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The Psychological Meaning of Clearness. F. M. BENTLEY. *Mind*, N. S., 1904, XIII., 242-253.

The author reviews first the various conceptions of clearness in modern systems of psychology. Wundt's explanation of variations of clearness by intensity, expectation, and association coincides with Ebbinghaus' factors of intensity, presence of similar processes, and repetition; only the term 'feeling-tone' is new with the latter. Münsterberg emphasizes 'the relation of clearness to the qualitative nature of

mental contents.' Kuelpe intimates the possibility of a quantitative measurement of clearness and of fixing a lower limit for obscurity. With Stumpf analysis affects distinctness. Finally, Lipps', James', and Stout's views do not allow any degree of clearness within a given state of consciousness.

The second part treats the relation of clearness to mental complexes and to attention. Spatial, or extensive, and temporal formations of mental complexes, or 'incorporations,' possess both definition and unity, and, therefore, are distinct, while qualitative incorporations, such as auditory fusion or taste-smell complexes, have unity and 'interpenetration,' and, therefore, are clear. "Definition and aloofness [interpenetration] depend, primarily, upon the spatial, temporal and qualitative peculiarities of stimulus; unity and variety, primarily, upon central dispositions and the resulting associations, feelings and habitual reactions."

Clearness must, like quality and intensity, be regarded as an attribute of simple sensations.

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SOCIAL PSYCHOLOGY.

The Individual and his Relation to Society as reflected in the British Ethics of the Eighteenth Century. JAMES HAYDEN TUFTS. Monograph Supplement, No. 25 of THE PSYCHOLOGICAL REVIEW, May, 1904.

This monograph continues a study of the conceptions of the individual and his relations to society, of which an earlier essay had considered the British ethics of the seventeenth century, and to which the writer hopes to make further contributions. The point of view is that of social psychology rather than that of ethics. The aim is not so much to note what the writers may say explicitly concerning the individual, as rather to uncover the underlying conceptions of the individual which find expression in theories of motive, or criterion, of honor or moral sense, of conscience or sympathy.

It is noted that the concept of a moral sense is found in certain divines prior to Shaftesbury. The latter author is compared with Descartes in that he founds ethics on the inner self of feeling as Descartes had found certainty in self consciousness. The individual of Shaftesbury is constituted by instincts and feelings and is essentially 'given': Mandeville with all his exaggerations deserves credit for his attempt at a genetic account of the moral and social individual, and also for bringing out the conflicting ideals which were finding expres-

sion in the moral and social life of the time. In the case of Hutcheson, it is pointed out that the 'moral sense' is not primarily a criterion for judging right and wrong, but rather an enlargement of the individual by allowing him a new avenue for receiving pleasure—an enlargement on the appreciative side analogous to the capacity for disinterested benevolence on the active side.

Butler adds one factor of a similar sort to that added by Hutcheson, when he distinguishes sharply the economic category of Interest from the moral and social, but his greater contribution is perhaps to be found in the place which he gives to reason as a unifying principle in the self, and in the dignifying of the individual by making him a source of moral authority. Just as Milton and Locke had treated the individual as 'born to command' in the political sphere, so Butler gives him the dignity of sovereignty in the moral life.

With Butler the various claims of the various factors which go to the make-up of the moral individual reach a tentative expression and adjustment. The work of the following writers was directed mainly to a psychological explanation of the moral individual which Butler had set up. Three different lines of explanation are traced: First, the explanation through association and imitation which was offered by Gay and Hartley is briefly noted. A more detailed study is given to the explanation offered by Hume's principle of sympathy. It is maintained that in the case of Hume it is not fair to assume a single dominating theory as is assumed in T. H. Green's analysis. A fair weighing of all the passages not only in the *Enquiry* but also in the *Treatise*, justifies rather the view that we have a twofold Hume, resulting from a conflict between the analytic method which he brought to his task and the actual material which he was too good an observer to pass over. This conflict between method and material is brought out (1) in the account of good and virtue, (2) in the account of sympathy, (3) in the account of justice, and (4) in the account of benevolence.

Adam Smith portrays the individual as the creation of social forces. He brings out the social factor in moral judgments and the rational elements in the moral individual. But in his explanation of the socializing agency, sympathy as he employs it is inadequate, nor is his psychology able to explain how an individual can become 'an impartial spectator.' The impartial spectator as Smith describes him is really the impartial spectator of an economic rather than of a moral situation, and in his psychology Smith, therefore, reflects remarkably the actual individual of his time.

THE AUTHOR.

MENTAL CONTAGION.

La Contagion Mentale. A. VIGOUROUX et P. JUQUELIER. Paris, Octave Doin. 1905.

Under the title of mental contagion it is proposed to study the contagion of reflex actions, of emotions, feelings, perceptions, voluntary movements, ideas and beliefs, *i. e.*, of all the manifestations of the activity of the cerebro-spinal cord. Mental is taken in this large sense because the higher functions of the cortex depend by slight gradations upon the lower functions of the medulla. Mental contagion implies the existence of a passive subject liable to be influenced, and also of an active subject exercising that influence. The first is unconscious of the influence he exerts, the second of the influence which he undergoes. Contagion can thus be considered as a variety of imitation, but the latter is involuntary. Imitation is differentiated from suggestion by spontaneity. There is imitation, if the initiative of the repetition comes from the subject who repeats that manifestation; there is suggestion if the same comes from the subject by whom the manifestation is repeated. The majority of the voluntary acts consists in the appropriation of a reaction upon the perception of an object without express deliberation. In mimetism the influences exerted are solely physical; in contagion there is a psychic element, although the initiative of the repetition is unconscious. Contagion is characterized by unconsciousness and irresistibility.

All the manifestations of psychic life are contagious; reflex actions, simple or complex, have a tendency to be reproduced by perception; affective actions are contagious by means of organic manifestations. Ideas are contagious in so far as they have an affective value; so also are the most of our actions called voluntary, because they are nothing but the resultant of affective states whereby the contagion can make its influence perceived. But contagion differs from such suggestion as is exemplified in hypnotism, in so far as the latter is willed by another and is called out by a conventional process. Yet this unconscious communication, so sudden and irresistible, is not a large distance intercerebral activity, a psychological electrization (Tarde). Every such psychic activity has a motor equivalent, and is transferred outwardly by muscular movements; it is, in a word, psycho-motor induction (Féré). In the contagion of movements and acts, the voluntary becomes rapidly reflex; habit and memory are nothing but the faculty of accomplishing, in a reflex fashion, acts primarily voluntary. Thus many of our motor reactions are conscious and provoked

by a sensation, without being properly called voluntary, *e. g.*, the imperfect contagion in the rhythmic imitations of dancers.

As to the mechanism of contagion in affective states, the means of expression by which the affective states of one subject become irresistably those of another are not those of magnetic action, of neural fluid, but of psychic automatism. The organic state is the basis of the emotion (James); organic sympathy conduces to the receptivity of imitative movement (Ribot); while the imitation is a sensorial excitation having the particular characteristic of being a cyclic activity, the muscular reaction reproducing its stimulus (Baldwin). Voluntary activity is inhibitive, and generally prevents contagion. On the contrary all the conditions which favor the disaggregation of personality, which leave to themselves the automatic centers, favor mental contagion; such are distraction, agglomeration, certain sociological conditions, and pathological conditions acquired or hereditary (intoxication, neurosis, degeneration). All the organic modifications which accompany the state of desire and the affective state resulting from the satisfaction or non-satisfaction of a desire are contagious. This includes the four groups of emotions, religious, moral, æsthetic and intellectual. Here normal persons, with sufficient powers of inhibition, are not generally subject to contagion, are not exposed to reproducing the pathological manifestations of cerebral activity; whereas the neuropathic, intoxicated, and degenerate are subject to the contagion of convulsions, of impulsive acts, of obsessions and manias of all kinds.

In the contagion of ideas there must be a motor element; hence, pure abstractions are the least contagious, while the ideas and thoughts of the mob form a bundle of psychic contagions essentially produced by physical points of contact. Thus masses of the public may undergo contagion, as in the recent Dreyfus case, or in race hatreds. As to the contagion of acts considered as voluntary, between the perception and the motor reaction is intercalated the volition, the idea of the ego as cause of the act performed. Yet in these conscious acts there is a substratum of the unconscious or an ancestral residue or various secret reasons, justifying the expressions epidemics of murder, of duelling, of suicide. When the reaction is aroused by symbols such as newspapers or books, the contagion is indirect, and its appearance depends upon a disaggregation of the personality, more or less pronounced. There are three cases: (1) The normal individual may find himself momentarily and accidentally in a state of disaggregation caused by distraction (psychological condition). (2) The same may be caused by

the environment, exterior circumstances, or in particular by a real or purely psychic contact, *e. g.*, crowds, or newspapers (sociological condition). (3) Acquired organic modifications, especially under the influence of intoxication and alcoholism, independent of exterior circumstances, render the individual liable to undergo with great ease a momentary or lasting psychic disaggregation. This is especially true of organic congenital conditions such as neurosis and degeneration (physio-pathological, abnormal organic condition).

The contagion of morbid movements is exhibited in the symptomatology of certain nervous affections and especially in the neuroses of morbid motor reactions, the convulsive crises of hysterics and epileptics, the choreas and tics of the neuropathic. Among children the convulsive epidemic is propagated with the greatest rapidity, while the view of a spasm of one afflicted with chorea is especially contagious. So also perverted instincts and appetites may be contagious, *e. g.*, sitiophobia and dipsomania. In the contagion of morbid forms of fear and of ideas of melancholia, in hallucinations of persecution, in hypochondria and the like, there must be a predisposition of heredity or of morbid organic conditions. Morbid anger is contagious like the state of mania. Both are manifest in criminals who imitate either other criminals or those who are unbalanced. Morbid contagion of tenderness is seen in excessive fondness for animals and in nostalgia. Among the anomalies of personal sentiment, self-feeling has two forms, the positive in pride and vanity, whether collective or professional, the negative in suicide. The latter may be the result of reflection, committed after a struggle against the instinct of self-preservation, or it may be a morbid act consequent on maniacal thoughts, committed by one weary of struggling against an obsession. Impulsive suicide, prepared for by melancholy, hypochondria or lowering of the vital functions, is extremely contagious, and relatively frequent with children.

The perversions of moral sense may be either passive and apathetic or active and impulsive. The causes of the loss of moral feeling are epilepsy, hysteria, apoplexy, dementia, and traumatic lesions. Heredity renders further subjects a fit soil upon which the influences of education, example, and excitement, in a word, contagion, may produce the maximum effect. It is under the influence of such contagion that the timid, the discontented, the neurotic and especially the hysterical commit acts legally reprehensible. Such acts, together with the morbid forms of the religious sentiment, imply a neuro-psychopathic predisposition; that being given, the mechanism of

involuntary imitation does not differ from that found in affective states and non-pathological ideas. In religious mania there are forms of elevation or depression, the latter depending on primitive emotions of fear or on the lowering of self feeling. Demonopathia has been succeeded by spiritualism, visual and auditory mediums by mysticism; in all these, psychic automatism plays its part.

Æsthetic feelings are contagious among normal individuals; it is for this reason that every great artist has his fanatical admirers and detractors. Among literary decadents and seekers after subtle virtuosity mental equilibrium is unstable. According to Lombroso they are the mattoids who group themselves by a sympathy of interest, and especially by a hatred of the common enemy, the man of genius. Contrasted with this is what Ribot calls scientific mysticism, a systematic doubt which would substitute demonstration for belief. This is essentially a malady of the understanding, but the truly pathological doubt which concerns itself not only with ideas, but with perceptions and acts, the state of mind in which a subject comes to discuss the reality of his organism, of his existence, of his activity, need not be considered as actually contagious.

This last statement of the joint authors exposes their failure to take account of recent investigations in the psychology of morbid religious movements. Otherwise they point out the probable trend of investigation in their closing statement that it is in the study of the phenomena of the unconscious and of psychological automatism that it is possible to explain the transmission or contagion between individuals of reflex movements, affective states and ideas.

I. WOODBRIDGE RILEY.

JOHNS HOPKINS UNIVERSITY.

BOOKS RECEIVED FROM FEBRUARY 5 TO MARCH 5.

La vie personnelle: étude sur quelques illusions de la perception intérieure. A. BAZAILLAS. Paris, Alcan, 1905. Pp. iii + 305.

The Exploration of Jacobs Cavern, McDonald Co., Mo. CH. PEABODY and W. K. MOOREHEAD. Printed for the Phillips Academy, Andover, Mass. (Dept. of Archaeology, Bull. I.), by the Norwood Press, 1904. Pp. 29. [With map and plates showing 'finds.']}

La Philosophie naturelle intégrale et les Rudiments des sciences exactes. A. RIST. 1^{re} Partie. Paris, Hermann, 1904. Pp. vi + 181.

The Life of Reason: Vol. I., Reason in Common Sense. Vol. II., Reason in Society. G. SANTAYANA. New York, Scribners, 1905. Pp. ix + 291, and viii + 205.

University of California Publications, Philosophy. Volume I. Studies in Philosophy prepared in commemoration of the Seventieth Birthday of George Holmes Howison. Berkeley, Univ. Press, 1904. Pp. 262. [Beautiful in its execution, a volume well adapted to its high topic and the noble purpose of its dedication.]

The Limits of Evolution and other Essays. G. H. HOWISON. 2d ed. revised and enlarged. New York, Macmillans, 1905. Pp. lvii + 450.

The Story of Art throughout the Ages. S. REINACH. Trans. by F. SIMMONDS. New York, Scribners, 1904. Pp. xi + 316. [A remarkably compact and profusely illustrated manual of the history of Sculpture, Architecture and Painting, ancient and modern.]

Species and Varieties, their Origin by Mutation. H. DE VRIES, Ed. by D. T. MACDOUGAL. Chicago, Open Court Co.; London, Kegan Paul, 1905. Pp. xviii + 847. [Lectures delivered in the University of California Summer School, 1904.]

Die Probleme der Romantik als Grundfrage der Gegenwart. O. EWALD. Berlin, Hofmann, 1905.

Studies in General Physiology. JACQUES LOEB. Decennial Publications of the University of Chicago. 2 vols. Chicago, University Press, 1905. Pp. xiii + 423, and xi + 425-782. \$7.50. [A collection of papers, mostly translated from the German.]

Historia del Alma. J. M. BALDWIN. Span. Trans. and Introduction by J. BESTEIRO. Madrid, Jorro, 1905. Pp. xvi + 342. 4 pes.

NOTES AND NEWS.

WE note the foundation of a new journal, the *Rivista di Psicologia applicata alla Pedagogia ed alla Psicopatologia*, to be edited by Professor G. C. Ferrari, of Bertalia (Bologna, bimonthly, 8 L.; foreign, 10 L.).

DR. LIVINGSTON FARRAND, professor of anthropology at Columbia University, and until recently secretary of the American Psychological Association, has been placed in charge of the work of the National Association for the Study and Prevention of Tuberculosis.

